

CLAIMS

What is claimed is:

1. A four-stroke engine comprising:
a crankcase;
an oil reservoir located within the crankcase; and
means for vibrating the crankcase to mist oil from the oil reservoir to lubricate engine components.
2. The four-stroke engine of claim 1, wherein the means for vibrating the crankcase includes the crankcase having a wall thickness of about 1.5 mm.
3. The four-stroke engine of claim 1, wherein the means for vibrating the crankcase includes the crankcase having a wall thickness of less than 1.5 mm.
4. The four-stroke engine of claim 1, wherein the means for vibrating the crankcase includes a vibration mechanism coupled to a portion of the crankcase.
5. The four-stroke engine of claim 4, wherein the vibration mechanism is a vibration plate.
6. The four-stroke engine of claim 4, wherein the vibration mechanism is a vibration spring.
7. The four-stroke engine of claim 4, wherein the vibration mechanism is coupled to a bottom portion of the crankcase.
8. The four-stroke engine of claim 1, wherein a clearance area located in the crankcase is less than 10 mm.

9. The four-stroke engine of claim 1, wherein a clearance area located in the crankcase is about 1.5 mm.
10. The four-stroke engine of claim 1, wherein a clearance area located in the crankcase facilitates splashing of the oil against a counterweight.
11. A four-stroke engine comprising:
 - a crankcase;
 - an oil reservoir located within the crankcase; and
 - means for misting oil from the oil reservoir without the use of an oil dipper.
12. The four-stroke engine of claim 11, wherein the means for misting oil from the oil reservoir includes minimizing a clearance area in the crankcase such that a surface ripple in the oil reservoir splashes against a counterweight in the engine.
13. The four-stroke engine of claim 12, wherein the clearance area is less than 10 mm.
14. The four-stroke engine of claim 12, wherein the clearance area is about 1.5 mm.
15. The four-stroke engine of claim 11, wherein the means for misting oil from the oil reservoir includes utilizing engine vibration to produce a ripple in a surface of the oil.
16. The four-stroke engine of claim 15, further comprising a vibration mechanism coupled to the crankcase to amplify the ripple.
17. The four-stroke engine of claim 11, wherein the crankcase has a wall thickness of about 1.5 mm.
18. The four-stroke engine of claim 11, wherein the crankcase has a wall thickness of less than 1.5 mm.